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body 30 is shown in Figures 2(c) and 2(d) wherein the moveable leaflets 32 are again shown in the first or closed position 34 and in the second or open position 35. Figures 2(e) and 2(f) provide a plan view of the valve body 30 with again the moveable leaflets 32 being in the first or closed position 34 and in the second or open position 35.

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An example of the operation of the valve body 30 is depicted in Figures 3(a) and 3(b). When in the second or open position 35, as shown in Figure 3(b), the moveable leaflets 32 provide a first fluid pathway represented by arrow 33 through the valve assembly 10. When the leaflets 32 are in the first or closed position 34, the moveable
10 leaflets 32 work together to occlude the first fluid pathway 33 as shown in Figure 3(a), occluding blood flow through the valve in the opposite direction as shown by the arrow denoting the direction of flow through the first fluid pathway 33.

In this example, the moveable leaflets 32 are arranged such that upon subject to
15 the first pressure differential across the valve body, blood flow through the first fluid pathway 33 causes the leaflets and the annular body portion 31 to rotate with respect to the support ring 20. The leaflets 32 are angled relative to the direction of blood flow through the first fluid pathway 33 and are caused to rotate which in turn rotates the annular body portion 31 with respect to the support ring 20 as blood flows past the
20 leaflets 32 through the first fluid pathway 33. As depicted in Figures 2(a) and 2(b), the leaflets are substantially cup-shaped with an outer convex surface 51 and an inner concave surface 52.

The plurality of moveable leaflets 32 are configured such that they move toward
25 the second or open position 35 progressively upon progressive change of pressure from the first pressure differential to the second pressure differential. As the blood flow reduces at the end of systole the momentum of the rotating valve would then tend to start closing down as it drove against the relatively slower moving blood. As the blood flow ceases, momentarily before the pressure is exerted backwards on the valve, the
30 moveable leaflets 32 are relatively close to the first or closed position 34 to occlude the first fluid pathway 33. This compares to all other valves where this is the moment at which shutting commences, so that the fall back pressure and leak is therefore higher and noisier as the valve snaps shut. This "snapping shut" is the cause of normal heart sounds in well functioning valves.

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